



Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)
2. (Previously Presented) The optical interconnection circuit according to claim 16,

the first circuit block and the second circuit block being optically and electrically connected to each other.
3. (Currently Amended) The optical interconnection circuit according to claim 16,

at least a part of the first optical waveguide and the second optical waveguide being provided on top surfaces of the first circuit block and the second circuit block.
4. (Currently Amended) The optical interconnection circuit according to claim 16,

at least a part of the first optical waveguide being provided on the first circuit block and the second circuit block to traverse the first circuit block and the second circuit block.
5. (Currently Amended) The optical interconnection circuit according to claim 16,

at least a part of the first optical waveguide being provided to detour around a third circuit block.
6. (Currently Amended) The optical interconnection circuit according to claim 16,

the first and the second elements being electrically connected to the first circuit block, and

the third and the fourth elements being electrically connected to the second circuit ~~block,~~block.

~~the second element being electrically connected to the first circuit block or the second circuit block, and~~

~~the fourth element being electrically connected to the first circuit block or the second circuit block.~~

7. (Canceled)

8. (Currently Amended) The optical interconnection circuit according to claim 16,

at least a part of the first optical waveguide covering ~~being at least one of the~~ first element and the third ~~element~~element, and

at least part of the second optical waveguide covering at least part of the second element and the fourth element.

9. (Currently Amended) The optical interconnection circuit according to claim 16,

the first circuit block and the second circuit block being any one of a CPU, a memory circuit, a DSP, an RF amplifying circuit, an image sensor, and a bio sensor, and

the first optical waveguide and the second optical waveguide being a transmission line of data signals or clock signals.

10-11. (Canceled)

12. (Currently Amended) The optical interconnection circuit according to claim 16,

a plurality of the integrated circuit chips being mounted on a substrate, and

the plurality of integrated circuit chips being optically connected to each other at least through the first element and the third element and the first optical waveguide provided on the substrate.

13. (Currently Amended) The ~~wavelength-multiplexing-on-chip~~ optical interconnection circuit according to claim 16,

a plurality of the integrated circuit chips being mounted on a substrate,
the integrated circuit chips being tightly bonded to each other, and
the integrated circuit chips being optically or electrically connected to each other.

14. (Previously Presented) An electro-optical device, comprising:
the optical interconnection circuit according to claim 16.

15. (Previously Presented) An electronic apparatus, comprising:
the optical interconnection circuit according to claim 16.

16. (Currently Amended) An optical interconnection circuit, comprising:
an integrated circuit chip;
a first circuit block ~~and a second circuit block~~ provided on the integrated circuit chip, the first circuit block ~~and the second circuit block~~ including a first element emitting a first light and a second element emitting a second light ~~plurality of elements each of which has a light emitting function or a light receiving function;~~

a second circuit block provided on the integrated circuit chip, the second circuit block including a third element receiving the first light and a fourth element receiving a second light;

~~an a first~~ optical waveguide that is provided on the integrated circuit chip, the first optical waveguide optically connecting the ~~plurality of elements, first and the third~~ elements;

a second optical waveguide that is provided on the integrated circuit chip, the
second optical waveguide optically connecting the second and the fourth elements;

a common light reflecting frame that reflects the first light and the second
light; and

a first element of the plurality of elements emitting a first light,
a second element the plurality of elements emitting a second light,
a third element of the plurality of elements receiving the first light,
a fourth element of the plurality of elements receiving the second light,
a wavelength of the first light emitted by the first element being different from
a wavelength of the second light emitted by the second ~~element,element.~~

the first circuit block including the first element,
the second circuit block including the third element,
the first circuit block or the second circuit block including the second element,
and
the first circuit block or the second circuit block including the fourth element.

17-23. (Canceled)

24. (New) The optical interconnection circuit according to claim 16,

the common light reflecting frame reflecting the first light and the second light
so that the first light and the second light enters the first optical waveguide and the second
optical waveguide, respectively.